

PHOSPHORS CONTAINING OXIDES OF  
ALKALINE-EARTH AND GROUP-IIIB METALS  
AND WHITE-LIGHT SOURCES INCORPORATING  
SAME

ABSTRACT OF THE DISCLOSURE

[0061] A phosphor comprises a material having a formula of  $AMgD_{10}O_{17}:Eu^{2+},Mn^{2+}$ , wherein A is at least an alkaline-earth metal selected from the group consisting of Ba, Sr, Ca, and combinations thereof; and D is at least a metal selected from the group consisting of Al, Ga, In, and combinations thereof; wherein  $Eu^{2+}$  ions are present in an amount from about 10 to about 50 atom percent of a combined quantity of A ions and europium ions, and  $Mn^{2+}$  ions are present in an amount from about 5 to about 30 atom percent of a combined quantity of magnesium ions and manganese ions. The phosphor is used alone or in conjunction with other phosphors to convert UV/blue radiation emitted by a source, such as an LED or a gas discharge device, to visible light.